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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,402	02/10/2004	Emre Tuncer	23748-07845	2421
758	7590	09/16/2005	EXAMINER WHITMORE, STACY	
FENWICK & WEST LLP SILICON VALLEY CENTER 801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041			ART UNIT 2825	PAPER NUMBER

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/776,402

Applicant(s)

TUNCER ET AL.

Examiner

Stacy A. Whitmore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6-9 and 13-28 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 10-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/05 & 7/04.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2, 6-8, 9, and 13-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petschauer (US Patent 5,596,506) in view of Cohn (US PG-Pub 2002/0133791).

2. As for claims 1-2, 6-8, 9, and 13-28, Petschauer discloses the invention substantially as claimed including processes, systems, and means for Identifying a victim net in an IC [col. 2, line 60 – col. 3; col. 8, col. 10, lines 31-40, col. 12, lines 5-10], determining change in ground capacitance for a victim net to identify a noise amplitude less than or equal to a maximum allowable height [col. 2, line 60 – col. 3; col. 8, col. 10, lines 31-40, col. 12, lines 5-10]; Petschauer further discloses incremental routing [col. 8 lines 45-53];

Petschauer does not specifically disclose selecting from a library at least one cell having an input capacitance for the victim net closest to the change in ground capacitance, and coupling the at least one cell with the victim net; coupling a library cell using incremental routing; testing the IC in response to connecting (with a connection module) the at least

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one cell with the victim net; testing comprises one of timing analysis, change in slew, power consumption, electromigration; rejecting the coupling with an adverse effect; wherein the cell comprises one of an inverter logic element and a capacitance cell.

Cohn discloses selecting a library cell for noise tolerance by substitution for cells that do not meet noise tolerance requirements [abstract, paragraphs 0013-0014, 0026, 0027]; and testing the IC in response to connecting (with a connection module) the at least one cell with the victim net; testing comprises one of timing analysis, change in slew, power consumption, electromigration; rejecting the coupling with an adverse effect; wherein the cell comprises one of an inverter logic element and a capacitance cell [abstract; fig. 1, paragraphs 0008-0011, 0013-0014, 026, 0038, because Cohn discloses the substitution to be incremental, and improving on the prior substitution, Cohn is actually incrementally testing the substitution based on the various claimed parameters].

3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Petschauer and Cohn because adding Cohn's cell substitution for noise intolerant cells or incremental routing and incrementally testing the substitutions would have allowed Petschauer's system to replace cells with specific noise effectible parameters such as specific input capacitances of a victim net and other known parameters which would improve design processes by allowing for changes by substitution to present predictable and within design rule criteria changes to circuit design thereby improving and easy the design process [see Cohn, abstract, paragraphs 0013-0014, 0026, 0027, see Petschauer, col. 8, lines 45-53 for incremental routing].

4. Claims 3-5, and 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


5. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose the invention as claimed, either singularly or in combination comprising at least the steps of calculation including the specific formulas claimed in claims 3-4, 10, and 12.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A. Whitmore whose telephone number is (571) 272-1685. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stacy A Whitmore  
Primary Examiner  
Art Unit 2825



SAW

September 12, 2005